

## CHAPTER SIX

# Shooting Skills

### Learning Objectives

At the end of this chapter, you will be able to:

- A. Give two reasons why good marksmanship is important.
- B. Define “dominant eye” and explain the procedures for determining it.
- C. Identify and describe the different skills for rifle marksmanship.
- D. Identify and explain the different skills for shotgun marksmanship.
- E. Explain the reasons and basic procedures for sighting-in a firearm.
- F. Know the safety rules, equipment, commands and etiquette used at a shooting range.



### Introduction


*“Why can’t I hit the clay pigeon with this shotgun?” your friend asks. “I’m pretty good with a rifle.” She’s getting frustrated. What techniques can you show her so that she can improve her shooting skill with a shotgun?*


Now that you are familiar with different kinds of firearms and ammunition and how they work, are you ready to start hunting? Not quite yet! Shooting, like driving a car, is not a skill that you are born with or just know from watching others. It takes time and practice to learn to shoot accurately and safely.

**Important:** Selecting a firearm that fits your size as well as your abilities is critical. If you choose a firearm that’s right for you, you are more likely to succeed in mastering the shooting skills necessary for a successful hunt. Start off with a light caliber such as a .22 caliber rifle, not a heavy one such as a .375 H & H magnum.

### A. Why do we need marksmanship?

**Marksmanship** is the ability to hit your target. It is important for two major reasons.

 The first reason is **safety**. If you can hit your target, you will be confident. When you know you can shoot accurately, you don’t need to spend extra time thinking about *how* to shoot, but can instead concentrate on where to aim and determine if a shot is safe.

 The second reason is to **make a clean kill**. A hunter’s goal should be to place one accurate shot for a quick, clean

### Key Words

Marksmanship

Dominant eye

Swing through

Sighting-in

Patterning

Range officer

Etiquette

humane kill. A good hunter practices marksmanship skills until his or her shots are consistently accurate, and studies animal anatomy to learn where the vital organs are located.

Shooting combines the activities of loading and unloading a firearm, selecting the correct ammunition and applying shooting skills. It isn't a difficult activity, but it takes time, practice, coaching and self-study to become proficient in the use of a rifle and/or a shotgun.

Ask a firearm instructor to help you when you are learning how to shoot. You may also join a sportsman's club. For shotgun owners, try shooting trap, skeet or sporting clays. For rifle shooters, try target shooting. These exercises will hone your shooting skills.

The fundamentals of shooting can be learned in the classroom before you head to the range. Some firearm instructors will employ training simulators, such as a rifle that emits a laser beam, to teach the basics of marksmanship. Talk to your firearms instructor to determine what training program he or she recommends for you.

## B. Your dominant eye

Regardless of whether you are shooting a rifle or shotgun, you will first need to determine your **dominant eye**. The dominant eye is the eye you use for sighting purposes. It is the stronger of your two eyes and it's the one that judges speed and range, and focuses more accurately than your non-dominant eye.

Most right-handed people are right-eye dominant. Most left-handed people are left-eye dominant. Some people are cross-dominant. They are right-handed, but left-eye dominant, or vice-versa. If you are cross-dominant, your instructor may wish you to mount a rifle or shotgun on the shoulder of the dominant eye regardless of your dominant hand. This adjustment can make the difference between hitting and missing a target.

## C. Rifle shooting skills

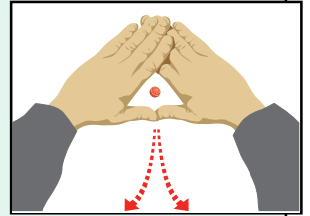
Rifle marksmanship depends on your mastery of several fundamental techniques. They are: shooting position, aiming, trigger control, breath control, and follow through. We will begin with your shooting position.

### Shooting position

Many shooters will sight in their firearms by using the **bench shooting position** — shooting sitting from a

### Finding your Dominant Eye

1. Face an object about 10 feet away.
2. Extend your arms straight out in front of you.
3. Form a small triangle by overlapping your hands.
4. Look through the triangle with both eyes.
5. Focus on the object.
6. Without moving your hands, close one eye at a time.
7. The eye that keeps the object in the center of the triangle is your dominant eye.



Source: Ohio Division of Wildlife



bench or table. This is a great shooting position to use when learning how to shoot a rifle. Trigger control, sight alignment and sight picture should be mastered in the bench position before you proceed to the four common shooting positions: **prone**, **sitting**, **kneeling**, and **standing**.



### Prone

The prone position is the steadiest shooting position and the one from which the fundamentals of rifle shooting are best learned. It is a good position for firing accurate

shots. The prone position is usually not suitable when hunting in tall grass or dense brush that can obscure the line of sight to the target and may deflect the path of the bullet.

### Positioning

- If you are right-handed, lie on your stomach with your body slightly to the left of the line of aim. If you are left-handed, reverse this position.
- Keep your back straight and legs in a relaxed position.
- Both elbows should be bent and your shoulders curved slightly forward to form a solid upper body position. The upper-body and arms support the rifle weight.

### Sitting

The sitting position is the next steadiest shooting position, and is more suitable when in tall grass or brush.

### Positioning

- Sit solidly on the ground. The legs may be crossed or open. If you are right-handed, the body should be positioned about 30° to the right of the line of aim.
- Place the left elbow near but not on the bony part of the left knee.
- As in the prone position, tuck the elbow as far under the rifle as possible.
- Place the right elbow on or near the right knee. You have now formed two triangles, which make a firm support for the rifle. Reverse the procedure if you are a left-handed shooter.



- Hold the rifle firmly but do not grip it too tightly. Bracing your body — not your shoulder! — against something stable such as a tree or rock will help steady your aim for a more accurate shot.

## Kneeling

Because the shooting arm is free, this position leaves the shooting arm and elbow unsupported and as a result the position is not as steady as either the prone or sitting positions. But with practice, the shooter can maintain control and shoot accurately.

### Positioning

- Turn so you are approximately at a 45° angle to the target.
- If you are right-handed, lower your body so the right knee touches the ground and place your left foot forward to steady you.
- Sit comfortably on the heel or the side of the right foot.
- Place the left elbow near, but not on, the bony part of the left knee, as far under the rifle as you can.
- If you are a left-handed shooter, kneel on the left knee with the right foot forward and the right elbow on the bent knee.



## Standing

The standing position is the least stable shooting position. It is also the most difficult position from which to fire an accurate shot. It requires excellent control. If there is too much waver, do not shoot. To help steady your shot, rest or support the rifle on a stable object such as a tree or large rock, or use a carrying strap as a sling.

### Positioning

- If you are right-handed, turn your body approximately 90° to the right of the target.
- Place your feet shoulder-width apart.
- Support the rifle with your left arm. Hold the left arm against your body for extra support.
- Hold the rifle firmly against your shoulder with the right hand. Do not grip the rifle too tightly.
- Reverse the procedure if you are a left-handed shooter.



## Aiming

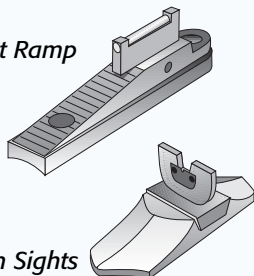
A rifle is aimed. This requires **sight alignment** and **sight picture**. There are many types of sights. You must become familiar with the type on your firearm so that you can sight in your target quickly, smoothly, and accurately.

### Types of Sights

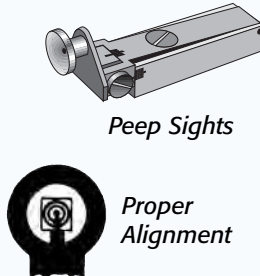


Proper Alignment

Front Ramp

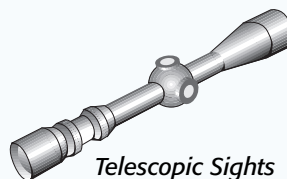


Open Sights



Peep Sights

Proper Alignment



Telescopic Sights

### Reticles



Duplex



Post



Crosshair

Proper sight alignment + sight picture



Proper sight alignment, but off target



Front sight on target, but bad sight alignment

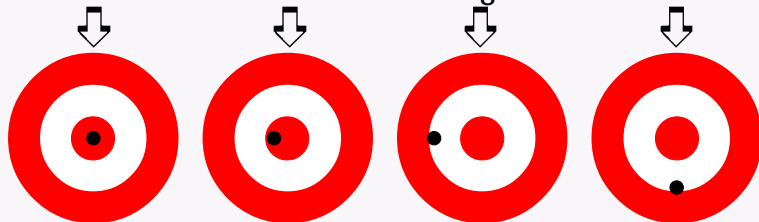
Aligned Left



Aligned Low



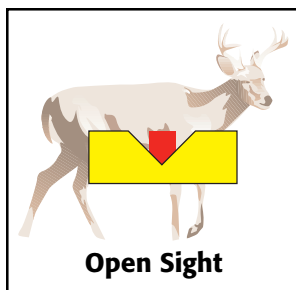
Where the shot will go ...



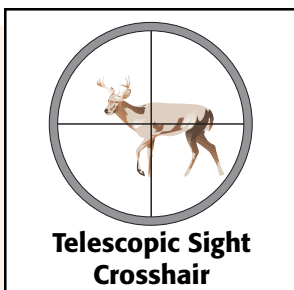
### Sight Alignment

**Sight alignment** means lining up the rear sight with the front sight, both horizontally and vertically.

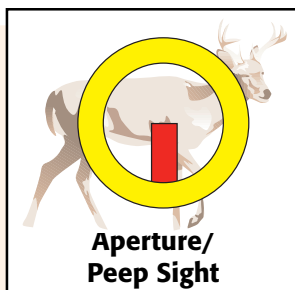
**Sight picture** is placing the front sight on the appropriate part of the target while keeping the rear sight in alignment. This is the most important part of aiming.



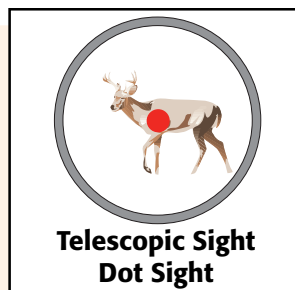
Open Sight



Telescopic Sight Crosshair



Aperture/Peep Sight



Telescopic Sight Dot Sight

### Sight Picture

**Remember:** Your bullet should hit the target at your point of aim. But many factors come into play when the bullet is traveling, such as gravity, air resistance, humidity, velocity and mass. The only way to learn to judge the effect of these factors on your accuracy is by practicing your marksmanship.

## Trigger control

Trigger control is essential for an accurate shot. With a rifle, you do not so much pull the trigger as **squeeze** it.

- 🦋 When the sights are aligned on your target, squeeze the trigger slowly and steadily.
- 🦋 Do not jerk the trigger. Anything other than a smooth squeeze will cause the sight picture to waver and will send the shot off target.
- 🦋 Try not to tense up before the rifle fires. You should be relaxed, allowing each shot to happen almost like a surprise.

## Breathing control

Breathing control is necessary to shoot accurately. As you breathe in and out, your chest rises and falls causing your arm to waver. Your firearm will also move, so it is important to control your breathing at the exact moment you fire.

- 🦋 When you are in a shooting position, with your cheek against the stock, take a deep breath, exhale a portion of it and hold your breath while you aim.
- 🦋 When your front sight is in focus and on target, squeeze the trigger.
- 🦋 If you hold your breath too long, you may lose control, start to shake and your bullet will not hit your point of aim. If you run out of breath before firing, relax, take a deep breath and try again.

## Follow through

Follow through simply means maintaining your sight picture and/or shooting position after discharging the firearm. If the rifle is moved a split second too soon, the bullet will not have left the barrel and your aim will be off target.

- 🦋 After squeezing the trigger, count to three before lowering the rifle from your sight picture.

## D. Shotgun shooting skills

Shotgun marksmanship requires some special skills that are substantially different from those you use to shoot a rifle accurately. The differences are found in **shooting position, mounting or holding the firearm, pointing, trigger control, and leading and follow-through.**

### Shooting position

The stance for shotgun shooting resembles that of a boxer in the





*Aim a rifle. Squeeze the trigger.*



*Point a shotgun. Pull the trigger.*

ring—feet spread apart, body well balanced, arms and trunk free to swing to the right and the left of the target. Relax so that you are able to move smoothly. This position must be comfortable and natural to allow for quick movement in any direction.

### Positioning

- When shooting, the body weight shifts to the leading leg (left leg if you shoot right-handed, right leg if you shoot left-handed).
- The leading hand holds the shotgun fore-stock and points naturally to the target area. You don't aim the shotgun so much as point it at your target.

### Mounting the shotgun

When you “mount the shotgun” you place it to your shoulder. To do this, **first** place the stock against your cheek, **then** put it against your shoulder. This ensures that the firearm is in exactly the same position each time you shoot. **Do not** raise the firearm to the shoulder first and then drop your head to rest your cheek against the stock. You will likely miss the target.

### Pointing and eyeing the target

**Pointing.** With the rifle you “aim” precisely. But with a shotgun you point at the target. Accurate shotgun shooting requires a fast sequence of movements involving the body, firearm and eyes. These movements need to be performed in one smooth, coordinated movement to achieve accuracy and this requires practice.

**Eyeing the target.** In shotgun shooting, keep both eyes wide open and focused on the moving target, **not** on the firearm barrel or the bead sight.

- While watching the target, mount the firearm correctly, point it toward the target area, and pull the trigger.

### Trigger control

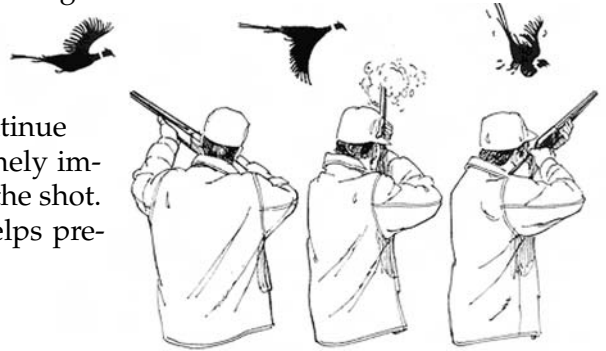
“Pulling the trigger” refers to the way you fire a shotgun. You do not fire a shotgun with slow, steady trigger pressure the way you do a rifle. Instead, the shotgun trigger is pulled. The trigger pull is similar to the action of striking a keyboard. Pull the trigger quickly, but not hard.

### Leading and follow-through, or swinging through

Leading means shooting ahead of the moving target. Leading is necessary when shooting at any moving target. If you were to shoot directly at a moving target, by the time the shot reaches the spot, the target will have already passed by. With correct leading, the shot and the moving target will reach the same spot at the same time.

Leading is only one part of a combination of skills called **swing-through**. For the beginning shooter, the swing through

method is easy to learn. Swing the muzzle of the shotgun so it points at the flying bird. Follow its flight path, increasing the speed of your swing until the firearm muzzle has passed through the bird to a spot just ahead. This is called leading. Then fire. Continue your swing during the shot and after. It is extremely important to continue swinging your shotgun after the shot. This is called follow through. Follow through helps prevent you from shooting behind your target.



## E. Sighting-in your rifle and patterning your shotgun

To make sure your shot hits where you want it to, you need to sight-in your rifle and pattern your shotgun.

### Sighting-in your rifle

**Sighting-in** a rifle is a step-by-step process of shooting and adjusting your sights until the bullet hits where you aim.

Once you have your rifle sighted-in, practice shooting and then practice some more. Remember: the key to shooting a rifle well is to slowly and smoothly squeeze the trigger—don't jerk it. Practice also helps you to learn what your sight picture looks like, and how your sights look in relation to each other and the target.

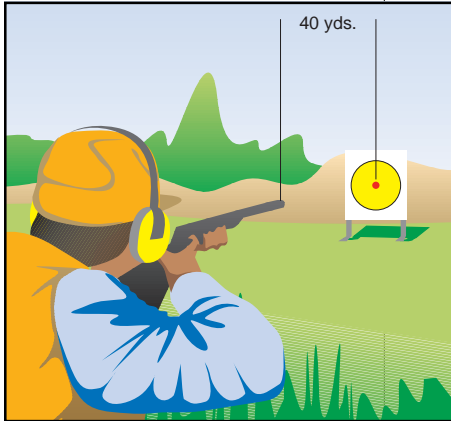
**Warning: A loaded firearm may not immediately fire when the trigger is pulled. When a "hang fire" occurs, slowly count to 10 while pointing the muzzle in a safe direction, and then remove the defective cartridge.**

### Procedure to sight-in a rifle

1. Before hunting, your rifle must be sighted-in. This means that the rifle sights must be adjusted so that the bullet will hit a target at a specific range. This is a necessary first step to becoming a responsible hunter.
2. Set up a target with a safe backstop at 25 yards and fire at least three test shots. Be sure to use the same type of ammunition you will use when hunting.
3. Check the target. If the group of hits is not at your point of aim, adjust the rear sight in the same direction you wish to move your hits. If the shots are not grouped together, it could be due to your shooting technique or some other mechanical factor. Get someone to help you.
4. Move the target to the range you will be hunting at — usually 100-200 yards. Repeat steps 2 and 3.
5. After your rifle is sighted-in, practice shooting under various light and weather conditions, and at various distances to become accurate and proficient.



*Adjust your sights to move the shot grouping to the vital area.*



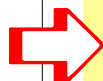
*Patterning a shotgun.*

## Patterning your shotgun

There is only one way to know for sure what shot pattern to expect from a specific shotgun. Create a target from a 30-inch or larger piece of paper. Stand 40 yards away and point and shoot at the center of your target. Repeat this with different shotshell brands and different shot sizes. Use some form of rest, such as sandbags on a table, to hold the shotgun steady. After shooting with different shotshells and different shot sizes, take each target and draw a 30-inch diameter circle so that the center of the circle has the greatest number, or highest density, of hits. This is called “patterning your shotgun.” All shotgun hunters need to **pattern** their firearms to determine which brands of shells, shot sizes and loads perform best and at what range. A shotgun may have a good pattern (high density of hits), but shoot off target. If this is the case, you will need to have the stock adjusted by a gunsmith.

## F. Where can I go to shoot?

When choosing a place to practice shooting there are serious legal and safety issues to consider. Check your local, state or federal governments for any laws governing where you can shoot. The safest place to learn to shoot is at your local shooting range. Some ranges are county- or state-run and open to the public. Others are private, for members’ use only, although some private ranges do allow some public shooting.



**A good hunter is a good shooter! Practice the shooting techniques you have learned until you can shoot accurately, quickly, and confidently. There’s no excuse for wounding an animal because you didn’t develop your shooting skills.**

## Range rules, commands and etiquette

**Range rules** and commands may vary from range to range. When you go to a new range, take the time to read the range rules and learn the commands used at that range. The person giving the commands is called the **range officer**. Always obey the range officer. Failure to do so could result in loss of shooting privileges or possibly cause an accident.

Two typical and important **range commands** are:

🐾 **“Cease-fire”** which means stop shooting, unload your firearm, put it down on the bench with the action open and the muzzle pointing down range, and step back behind the cease-fire line.

- 🦌 **"The range is active" (or "hot" or "live")** which means you can load and shoot your firearm.

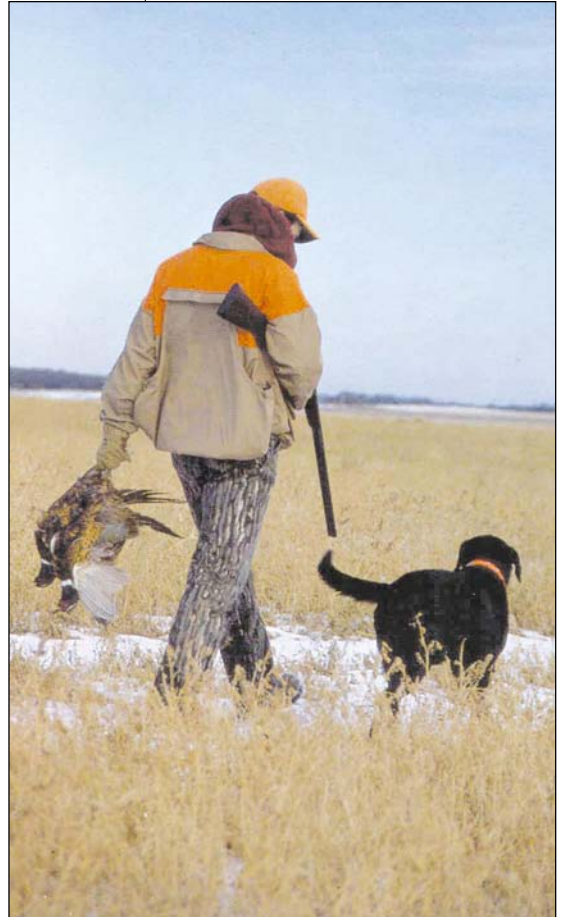
As well as range safety rules, certain **standards of etiquette** are expected of shooters. Here are just a few examples of proper range etiquette:

- 🦌 When shooting blackpowder firearms, shoot from a location downwind of other shooters on the firing line.
- 🦌 Always ask the owner for permission before handling that person's firearm or equipment.
- 🦌 Avoid interrupting or distracting others while they are shooting.
- 🦌 Avoid rapid-fire shooting since it will disturb those sighting in their rifles.
- 🦌 Shoot only your own targets.
- 🦌 Assist new shooters by offering advice or coaching.
- 🦌 Be aware of where your brass is ejecting and install a barrier between you and the next shooting bay. This will help prevent the shooter beside you from being hit by your spent brass.
- 🦌 Clean up after shooting by picking up your brass and taking down your target. Leave the range as clean as or cleaner than you found it.

## Safety equipment and clothing

Like many activities, shooting requires safety equipment. Always use hearing and eye protection. Many ranges will insist that shooters wear hearing and eye protection. Even if they don't insist, it's still a good idea to wear it. Safety equipment is generally inexpensive, commonly available, and can be easily replaced if lost, unlike your hearing or eyesight. Even a .22 long rifle, especially if fired indoors, produces enough sound to damage your hearing.

- 🦌 Use headphone-type hearing protectors if you are shooting a firearm. Headphones provide reasonable sound protection and can be used for years.
- 🦌 Use earplugs if you are shooting a shotgun, since headphones affect how a shotgun can be mounted. Some earplugs are disposable after one use, others are reusable, and some can be specially molded for your ears.



## Chapter Six Quiz

1. Which picture shows the correct alignment of front and rear sights? (Circle the correct answer.) Now mark where the bullet will hit on each target.



High \_\_\_\_\_  
On Target \_\_\_\_\_  
Low \_\_\_\_\_



High \_\_\_\_\_  
On Target \_\_\_\_\_  
Low \_\_\_\_\_



High \_\_\_\_\_  
On Target \_\_\_\_\_  
Low \_\_\_\_\_

2. Which skills help you shoot better with a shotgun? (Check the correct answers.)

\_\_\_\_\_ Pull the trigger.  
\_\_\_\_\_ Squeeze the trigger.  
\_\_\_\_\_ Leading your target.  
\_\_\_\_\_ Stand like a boxer.  
\_\_\_\_\_ First bring your gun to your shoulder.  
\_\_\_\_\_ First bring your gun to your cheek.

3. Which is the steadiest position for shooting a rifle? (Choose the correct answer.)

\_\_\_\_\_ prone  
\_\_\_\_\_ sitting  
\_\_\_\_\_ kneeling  
\_\_\_\_\_ standing

4. Proper sight alignment involves lining up what 3 objects?

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_